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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 615,875	07 13 2000	Hideaki Tanaka	36856 336	4354

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EXAMINER

GLENN, KIMBERLY E

ART UNIT PAPER NUMBER

2817

DATE MAILED: 11 20 2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/615,875

Applicant(s)

TANAKA, HIDEAKI

Examiner

Kimberly E Glenn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10, 12, 14-19 and 22 is/are rejected.
- 7) ☒ Claim(s) 6-9, 11, 13, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The term "LC π type" in claims 9 and 21 is a relative term, which renders the claim indefinite. The term "LC π type" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5 10, 12, 14-17, 19 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Mandai et al US Pat 5,436,601.(of record)
3. Mandai et al disclose a delay line comprising a plurality of insulating layer stacked on each other to define a monolithic laminated body, the laminated body including a plurality of insulating layers and a least three stages of a low pass filter including at least three inductors and

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a plurality of capacitors. The at least three inductors are defined by a plurality of coil conductors patterns arranged on the same plane of insulating layers of the laminated body. Each of the at least three inductors has coil axis that is parallel with a laminating direction of the insulating layers of the laminated body, and winding direction of adjacent ones of the at least three inductors are opposite to each other. The insulating layers are made of a dielectric ceramic material. One of the plurality of capacitors is connected to an end of at least one of the least three inductors, and another of the plurality of capacitors is connected to another end of the at least one of the at least three inductors, a located at different positions in a laminating direction of the insulating layers. The insulating layers have a plurality of via holes for connecting the coil conductors patterns that define the at least three inductors.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mandai et al US Pat 5,436,601.
7. The primary reference Mandai et al. teaches a delay line comprising a plurality of insulating layer stacked on each other to define a monolithic laminated body, the laminated body including a plurality of insulating layers and a least three stages of a low pass filter including at least three inductors and a plurality of capacitors. (See the above 35 USC 102(b) rejection)
8. Thus, Mandai et al is shown to teach all of the limitations of the claim with the exception of the insulating layer having a dielectric constant of 15 or less.
9. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the insulating layer have a dielectric constant of 15 or less, since it has been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

Allowable Subject Matter

10. Claims 6-8, 13 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
11. The following is a statement of reasons for the indication of allowable subject matter:
With the regards to claims 6 and 20, the prior art of record does not disclose or fairly teach the ratio of the vertical dimension to the lateral dimensions of each of the coil conductors patterns is approximately 1. With regard to claim 8, the prior art of record does not disclose or fairly teach the coil divided into at least four inductors. With regards to claim 11, the prior art of record does not disclose or fairly teach the coil conductors patterns having the same shape. With regards to

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claim 13, the prior art of record does not disclose or fairly teach the insulating layer including magnetic material.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Horle et al US Pat 6,222,430 discloses a dielectric layer having a dielectric constant of 15.

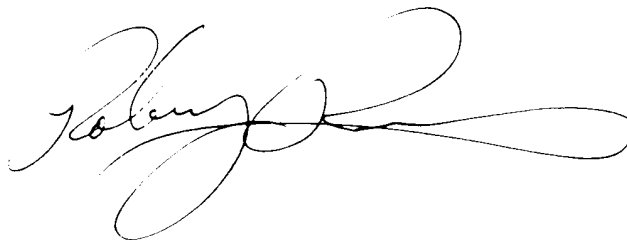
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E Glenn whose telephone number is (703) 306-5942. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (703) 308-4909. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Kimberly E Glenn
Examiner
Art Unit 2817

keg
November 2, 2001

A handwritten signature in black ink, appearing to read 'Kimberly E Glenn', with a large, stylized loop at the end.